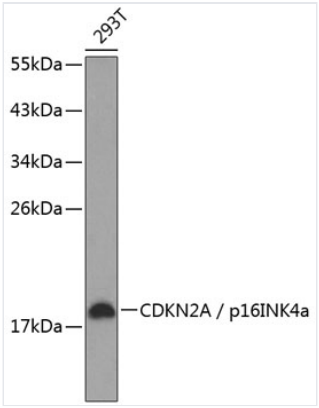
CDKN2A/p16INK4a Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	CDKN2A/p16INK4a, Polyclonal Antibody
Full Product Name	CDKN2A/p16INK4a Polyclonal Antibody
Product Gene Name	anti-CDKN2A/p16INK4a antibody
Product Synonym Gene Name	p16INK4a
Product Synonym Names	CDKN2A; ARF; CDK4I; CDKN2; CMM2; INK4; INK4A; MLM; MTS-1; MTS1; P14; P14ARF; P16; P16-INK4A; P16INK4; P16INK4A; P19; P19ARF; TP16; cyclin-dependent kinase inhibitor 2A
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	PBS with 50% glycerol, pH7.4
Purity/Purification	Affinity purification
Preparation and Storage	Store at -20 degree C. Avoid freeze/thaw cycles.
Molecular Weight	16,533 Da
Chromosome Location	Chromosome: 9; NC_000009.11 (21967751..21994490, complement). Location: 9p21
OMIM	151623
3D Structure	ModBase 3D Structure for P42771
Immunogen	A synthetic synthetic peptide of human CDKN2A/ p16INK4a (NP_000068.1).
Conjugation	Unconjugated
Product Categories/Family for anti-CDKN2A/p16INK4a antibody	Total protein Ab
Applications Tested/Suitable for anti-CDKN2A/p16INK4a antibody	Western Blot (WB), Immunoprecipitation (IP)
Application Notes for anti-CDKN2A/p16INK4a antibody	WB: 1:500-1:2000 IP: 1:50-1:100
Related Product Information for anti-CDKN2A/p16INK4a antibody	This gene generates several transcript variants which differ in their first exons. At least three alternatively spliced variants encoding distinct proteins have been reported, two of which encode structurally related isoforms known to function as inhibitors of CDK4 kinase. The remaining transcript includes an alternate first exon located 20 Kb upstream of the remainder of the gene; this transcript contains an alternate open reading frame (ARF) that specifies a protein which is structurally unrelated to the products of the other variants. This ARF product functions as a stabilizer of the tumor suppressor protein p53 as it can interact with, and sequester, the E3 ubiquitin-protein ligase MDM2, a protein responsible for the degradation of p53. In spite of the structural and functional differences, the CDK inhibitor isoforms and the ARF product encoded by this gene, through the regulatory roles of CDK4 and p53 in cell cycle G1 progression, share a common functionality in cell cycle G1 control. This gene is frequently mutated or deleted in a wide variety of tumors, and is known to be an important tumor suppressor gene.
Other Notes	Small volumes of anti-CDKN2A/p16INK4a antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for CDKN2A/p16INK4a purchase	MBS9431388 is an antibody targeting CDKN2A/p16INK4a. Also known as CDKN2A/p16INK4a Polyclonal Antibody. Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-CDKN2A/p16INK4a antibody
Western blot analysis of extracts of 293T cells, using CDKN2A/ p16INK4a antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CDKN2A/p16INK4a. It may not necessarily be applicable to this product.

NCBI GI #	4502749
NCBI GeneID	1029
NCBI Accession #	NP_000068.1
UniProt Primary Accession #	P42771
UniProt Secondary Accession #	Q8N726
UniProt Related Accession #	P42771; Q8N726
GenBank Nucleotide #	NM_000077.4
NCBI Official Full Name	cyclin-dependent kinase inhibitor 2A isoform p16INK4a
NCBI Official Synonym Full Names	cyclin-dependent kinase inhibitor 2A
NCBI Official Symbol	CDKN2A
NCBI Official Synonym Symbols	ARF; MLM; P14; P16; P19; CMM2; INK4; MTS1; TP16; CDK4I; CDKN2; INK4A; MTS-1; P14ARF; P19ARF; P16INK4; P16INK4A; P16-INK4A
UniProt Protein Name	Cyclin-dependent kinase inhibitor 2A, isoforms 1/2/3
UniProt Synonym Protein Names	Cyclin-dependent kinase 4 inhibitor A; CDK4I; Multiple tumor suppressor 1; MTS-1; p16-INK4a
UniProt Gene Name	CDKN2A
UniProt Synonym Gene Names	CDKN2; MTS1; CDK4I; MTS-1; p16-INK4; p16INK4A
UniProt Entry Name	CD2A1_HUMAN
NCBI Protein Information	cyclin-dependent kinase inhibitor 2A; CDK4 inhibitor p16-INK4; multiple tumor suppressor 1; cell cycle negative regulator beta; cyclin-dependent kinase 4 inhibitor A; cyclin-dependent kinase inhibitor 2A (melanoma, p16, inhibits CDK4)

UniProt Comments for CDKN2A/p16INK4a	p16-INK4A: a cell-cycle regulatory protein that interacts with CDK4 and CDK6, inhibiting their ability to interact with cyclins D. Inhibits the phosphorylation of the retinoblastoma protein by CDK4 or CDK6, and entry into the S phase of the cell cycle. The p16INK4A and p14ARF proteins are encoded by CDKN2A, a known tumour suppressor gene in multiple cancers. CDKN2A is inactivated in 72% of cases of lung squamous cell carcinoma: 21% by epigenetic silencing by methylation, 18% inactivating mutation, 4% by exon 1b skipping, and 29% by homozygous deletion. Defects in CDKN2A are the cause of familial atypical multiple mole melanoma-pancreatic carcinoma syndrome, Li-Fraumeni syndrome, and the melanoma-astrocytoma syndrome. The melanoma-astrocytoma syndrome is characterized by a dual predisposition to melanoma and neural system tumors, commonly astrocytoma. Four alternatively spliced p16 isoforms have been reported. Two alternatively spliced isoforms of ARF have been reported. Protein type: Tumor suppressor; Cell cycle regulation; Nucleolus Chromosomal Location of Human Ortholog: 9p21 Cellular Component: nucleoplasm; nuclear body; protein complex; mitochondrion; cytoplasm; nucleolus; nucleus; cytosol Molecular Function: cyclin-dependent protein kinase inhibitor activity; NF-kappaB binding; protein binding; DNA binding; p53 binding; ubiquitin-protein ligase inhibitor activity; transcription factor binding; protein kinase binding Biological Process: protein polyubiquitination; positive regulation of apoptosis; positive regulation of transcription, DNA-dependent; regulation of protein stability; negative regulation of B cell proliferation; regulation of protein export from nucleus; negative regulation of cell proliferation; apoptotic mitochondrial changes; regulation of G2/M transition of mitotic cell cycle; somatic stem cell division; cell cycle arrest; caspase activation; negative regulation of immature T cell proliferation in the thymus; transcription, DNA-dependent; protein destabilization; protein stabilization; negative regulation of cyclin-dependent protein kinase activity; negative regulation of cell-matrix adhesion; positive regulation of protein sumoylation; inhibition of NF-kappaB transcription factor; Ras protein signal transduction; negative regulation of ubiquitin-protein ligase activity; negative regulation of phosphorylation; negative regulation of protein kinase activity; positive regulation of transcription from RNA polymerase II promoter; positive regulation of DNA damage response, signal transduction by p53 class mediator; mitotic cell cycle; negative regulation of cell growth; negative regulation of transcription, DNA-dependent; rRNA processing; G1/S transition of mitotic cell cycle Disease: Melanoma-astrocytoma Syndrome; Melanoma, Cutaneous Malignant, Susceptibility To, 2; Melanoma-pancreatic Cancer Syndrome
Research Articles on CDKN2A/p16INK4a	**1.** Results suggest that polymorphisms of MDM2 and p14(ARF) contribute to the interindividual difference in susceptibility to differentiated thyroid carcinoma, either alone or more likely jointly.
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